

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-013564

(43)Date of publication of application : 16.01.1998

(51)Int.Cl.

H04M 11/00
G06F 13/00

(21)Application number : 08-182791

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(22)Date of filing : 24.06.1996

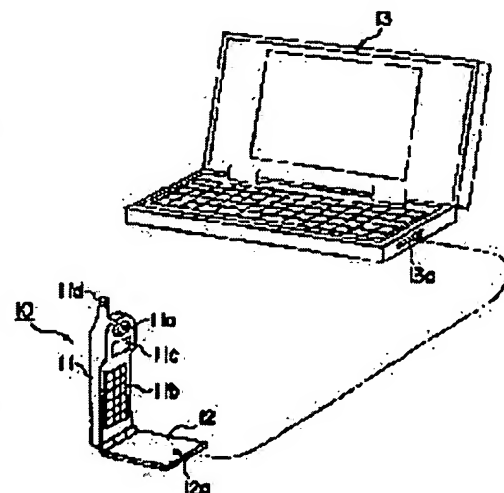
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(54) MOBILE TELEPHONE SET CAPABLE OF DATA COMMUNICATION

(57)Abstract:

PROBLEM TO BE SOLVED: To attain data communication while connecting directly the telephone set to a personal computer(PC) by configuring a collapsible part of a slave set of a collapsible mobile telephone set such as a portable telephone set in compliance with standards of PC cards and providing a data communication function to the mobile telephone set itself.

SOLUTION: A collapsible part 12 of a personal handy phone system 10 adopts the standards of PC cards such as PCMCIA and a contact part is provided to the tip and a data communication circuit such as a MODEM circuit is provided in a main body 11 or the collapsible part 12. In the case of data communication, the collapsible part 12 is inserted to a PC card slot 13a of a PC 13 and connects to an interface. Thus, a dial button 11b or the main body 11 of the personal handy phone system 10 or a key board of the PC 13 is used to dial a telephone number of a communication opposite party and the PC 13 makes digital data communication via the collapsible part 12 through a data communication circuit and a mobile telephone set circuit in the personal handy phone system 10.



LEGAL STATUS

[Date of request for examination]

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10/46522

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the migration telephone in which data communication is possible especially about migration telephones, such as a cellular phone and a simple cellular phone.

[0002]

[Description of the Prior Art] When performing digital data communication link and facsimile communication from a personal computer or a word processor conventionally using migration telephone, he connects with a personal computer or is trying to connect directly the telephone only for digital data communication links to a personal computer for a portable telephone, PHS telephone, etc. through a modem IC card.

[0003] For example, when using a modem IC card, as shown in drawing 3, modem IC card 1 consists of the body section 2 which consisted of specification of the PC card of a personal computer, and a connector 3 attached at the tip of the interconnection cable prolonged from the body section 2. And while the above-mentioned body section 2 is connected to the interface of the PC Card slot of a personal computer 4 by being inserted in PC Card slot 4a of a personal computer 4, the above-mentioned connector 3 is connected to the PHS telephone 5 by being inserted in the connector of the existing migration telephone 5, for example, the PHS telephone as a simple portable telephone.

[0004] Call origination of the telephone number of a communications partner is carried out by dial carbon button 5a with which the front face of the PHS telephone 5 was equipped, and after carrying out a line connection, according to the data telecommunication system of such a configuration, a digital data communication link is performed between communications partners through the PHS telephone 5 through modem IC card 1 from a personal computer 4. Moreover, in PHS telephone 5 simple substance, call origination can be carried out using carbon button 5a for a dial prepared in telephone 5 body, and it can talk over the telephone by using loudspeaker 5b for receivers b, and microphone 5c for transmission.

[0005] However, it sets to the data telecommunication system of such a configuration. From modem IC card 1 of another object other than a personal computer 4 and the PHS telephone 5 being required For example, the portable mold personal computer 4 or word processors, such as a notebook mold or a supplementary class note book mold, etc. are used as a personal computer 4. When performing the so-called mobile computing, while it was inconvenient to carrying, there was a problem that the place for modem IC card 1 and the PHS telephone 5 other than a personal computer 4 was needed.

[0006] On the other hand, as shown, for example in drawing 4, the wireless modem card 6 only for data communication is also developed. In drawing 4, the wireless modem card 6 consists of the body section 7 constituted as PHS telephone, and a connector area 8 which was supported rockable to the body section 7 and which folded up and consisted of specification of the PC card of a formula. And the above-mentioned connector area 8 is connected to the interface of the PC Card slot of a personal computer 4 by being inserted into PC Card slot 4a of a personal computer 4.

[0007] According to the data telecommunication system of such a configuration, after it carries out call origination of the telephone number of keyboard 4b of a personal computer 4 to a communications partner and it carries out a line connection, a digital data communication link is performed between communications partners through the body section 7 of a connector area 8 to the wireless modem card 6 from a personal

computer 4.

[0008]

[Problem(s) to be Solved by the Invention] However, to jack 7a for a message prepared in the wireless modem card 6, it connects the earphone 9 with a microphone and is made to carry out the telephone number from the keyboard of a personal computer 4 in the data telecommunication system which used such a wireless modem card 6, when performing the usual message since data communication specializes in wireless modem card 6 the very thing and it is not equipped with the dial carbon button etc. an input and call origination. Therefore, in spite of having had the function of the usual PHS telephone with wireless modem card 6 simple substance, it could not be used as PHS telephone but was inconvenient.

[0009] In view of the above point, this invention is directly linked with a personal computer, and also aims data communication at offering possible migration telephone.

[0010]

[Means for Solving the Problem] While the above-mentioned purpose builds in the loudspeaker the substrate with which the circuit for mobile phones was constituted, and for receivers according to this invention The body section equipped with the antenna for transmission and reception, and the folding section which is supported pivotably rockable to the end of the body section and builds in the microphone for transmission, While either an implication, the above-mentioned body section or the above-mentioned folding section is equipped with key switches, such as a dial carbon button, and the above-mentioned folding section consists of specification of a PC card It is attained by the migration telephone characterized by having the circuit for performing data communication to the above-mentioned folding section or body circles through the body section from the personal computer connected to the fold-up section.

[0011] The migration telephone by this invention is desirable, and the above-mentioned folding section consists of PC card specification of PCMCIA.

[0012] The migration telephone by this invention is desirable, and the above-mentioned migration telephone is a cordless handset of portable telephone, simple portable telephone, and cordless type fixed telephone.

[0013] according to the above-mentioned configuration -- the folding section of the cordless handset of the so-called folding-type mobile phone, for example, a portable telephone, PHS telephone, and cordless type fixed telephone -- a PC card, while consisting of specification of PCMCIA preferably Since the migration telephone itself is equipped with data communication facility, such as a modem, when talking over the telephone, where the fold-up section is opened, it can talk over the telephone by carrying out call origination with a dial carbon button, and using the microphone for transmission of the loudspeaker for receivers of the body section, and the folding section.

[0014] Moreover, when performing a digital data communication link, migration telephone is directly connected to a personal computer by inserting the fold-up section in PC Card slots, such as a personal computer. From this condition, call origination will be performed by inputting the telephone number from keyboards, such as a dial carbon button of the body section, or a personal computer, and a digital data communication link may be performed through the folding section and the body section of migration telephone from a personal computer or a word processor.

[0015] In this case, since that folding section is connected by being directly inserted in PC Card slots, such as a personal computer, migration telephone has an unnecessary cable etc. and its modem of another object is also unnecessary by building in data communication circuits, such as a modem function.

[0016]

[Embodiment of the Invention] Hereafter, this invention is explained to a detail based on the operation gestalt shown in the drawing. Drawing 1 shows 1 operation gestalt of the simple portable telephone as migration telephone which applied this invention. In drawing 1, the simple portable telephone 10 consists of the folding sections 12 supported rockable to the margo inferior of the body section 11 and the body section 11. The above-mentioned body section 11 equips the interior with the substrate (not shown) with which the circuit for mobile phones was constituted, loudspeaker 11a for receivers, key switch 11b, such as a dial carbon button, display 11c, and antenna 11d for transmission and reception. On the other hand, the above-mentioned folding section 12 is equipped with microphone 12a for transmission.

[0017] Although the above configuration is the same configuration as the conventional fold-up formula PHS

telephone, in the simple portable telephone 10 by this invention operation gestalt, the above-mentioned folding section 12 consists of specification of PC cards, such as PCMCIA, and has the contact surface in a part for the point.

[0018] Furthermore, in the above-mentioned body section 11 or the folding section 12, data communication circuits, such as a modem circuit (not shown), are prepared. This data communication circuit has the modem function for performing data communication through the body section 11 from a personal computer etc.

[0019] When the simple portable telephone 10 by this invention operation gestalt is constituted as mentioned above and it performs the usual message, it is simple portable telephone 10 simple substance, and dial carbon button 11b prepared in the body section 11 is operated, call origination of the telephone number of a communications partner is carried out, it carries out a line connection, and a message is performed.

[0020] Moreover, when performing data communication, the folding section 12 of the point ** simple portable telephone 10 is connected to the interface of the PC Card slot of a personal computer 13 by being inserted in PC Card slot 13a of a personal computer 13. Call origination of the telephone number of a communications partner is carried out by this with the keyboard of dial carbon button 11b with which the body section 11 of the simple portable telephone 10 was equipped, or a personal computer 13, and after carrying out a line connection, a digital data communication link can carry out between communications partners through the folding section 12 of the simple portable telephone 10 through the data communication circuit and the circuits for mobile phones (not shown) in the simple portable telephone 10, such as a modem, from a personal computer 13.

[0021] In this case, a facsimile machine etc. is used other than the personal computer connected to the telephone network of a fixed-line telephone or a mobile phone, for example through the modem as a communications partner, or a word processor. In the case of a facsimile machine, picture transmission by facsimile transmission will be performed between the PHS telephone 10, and a personal computer 13 and the facsimile machine concerned.

[0022] Drawing 2 shows other operation gestalten of the simple portable telephone as migration telephone which applied this invention. In drawing 2, the simple portable telephone 20 is constituted like 1 operation [which it folds up, and the sections 22 are consisted of and was explained previously fundamentally] gestalt supported rockable to the margo inferior of the body section 21 and the body section 21.

[0023] The substrate with which, as for the above-mentioned body section 21, the circuit for mobile phones was constituted by the interior (not shown). It has loudspeaker 21a for receivers, and antenna 21d for transmission and reception. On the other hand, the above-mentioned folding section 22 In considering as a different configuration from 1 operation gestalt and performing the usual message at a point equipped with key switch 22b, such as a dial carbon button, and microphone 22a for display 22c transmission With simple portable telephone 20 simple substance, dial carbon button 22b prepared in the folding section 22 is operated, call origination of the telephone number of a communications partner is carried out, it carries out a line connection, and a message is performed.

[0024] Moreover, when performing data communication, the folding section 22 of the point ** simple portable telephone 20 is connected to the interface of the PC Card slot of a personal computer 13 by being inserted in PC Card slot 13a of a personal computer 13. Call origination of the telephone number of a communications partner is carried out by this with the keyboard of dial carbon button 22b with which the folding section 22 of the simple portable telephone 20 was equipped, or a personal computer 13, and after carrying out a line connection, a digital data communication link can carry out between communications partners through the folding section 22 of the simple portable telephone 20 through the data communication circuit and the circuits for mobile phones (not shown) in the simple portable telephone 20, such as a modem, from a personal computer 13.

[0025] In addition, in the above-mentioned operation gestalt, although the case where this invention was applied to a simple portable telephone as migration telephone was explained, it is clear that this invention can be applied to the cordless handset of not only this but other migration telephones, for example, a portable telephone, and PHS telephone, or cordless type fixed telephone.

[0026]

[Effect of the Invention] according to [as stated above] this invention -- the folding section of the cordless handset of so-called folding-type mobile phone, for example, portable telephone, simple portable telephone, and cordless type fixed telephone -- a PC card, while consisting of specification of PCMCIA preferably Since the

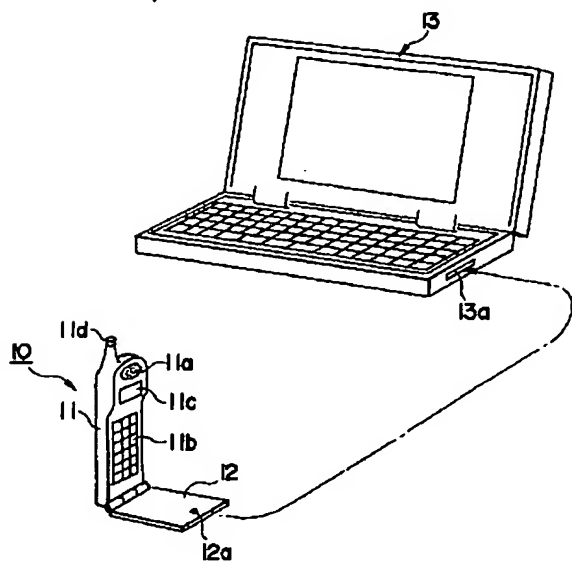
migration telephone itself is equipped with data communication facility, when talking over the telephone, where the fold-up section is opened, it can talk over the telephone by carrying out call origination with a dial carbon button, and using the microphone for transmission of the loudspeaker for receivers of the body section, and the folding section.

[0027] Moreover, when performing a digital data communication link, migration telephone is directly connected to a personal computer by inserting the fold-up section in PC Card slots, such as a personal computer. From this condition, call origination will be performed by inputting the telephone number from keyboards, such as a dial carbon button of the body section or the folding section, or a personal computer, and a digital data communication link may be performed through the folding section and the body section of migration telephone from a personal computer.

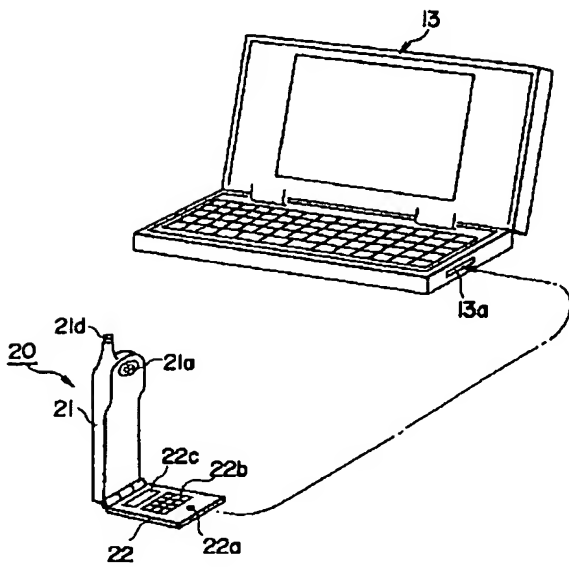
[0028] In this case, since that folding section is connected by being directly inserted in PC Card slots, such as a personal computer, migration telephone has an unnecessary cable etc. and its modem of another object is also unnecessary by building in data communication circuits, such as a modem function. Therefore, while being able to talk over the telephone alone, when performing data communication, the migration telephone which whose space for a modem or migration telephone is unnecessary, and was excellent in portability will be obtained.

[0029] In this way, according to this invention, it will link with a personal computer directly and the extremely excellent migration telephone in which data communication is also possible may be offered.

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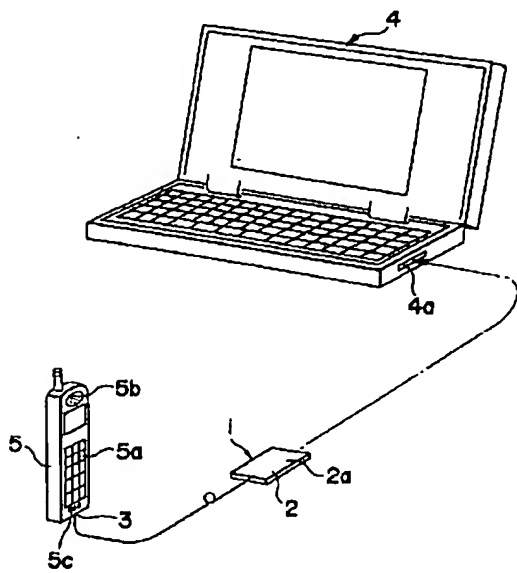
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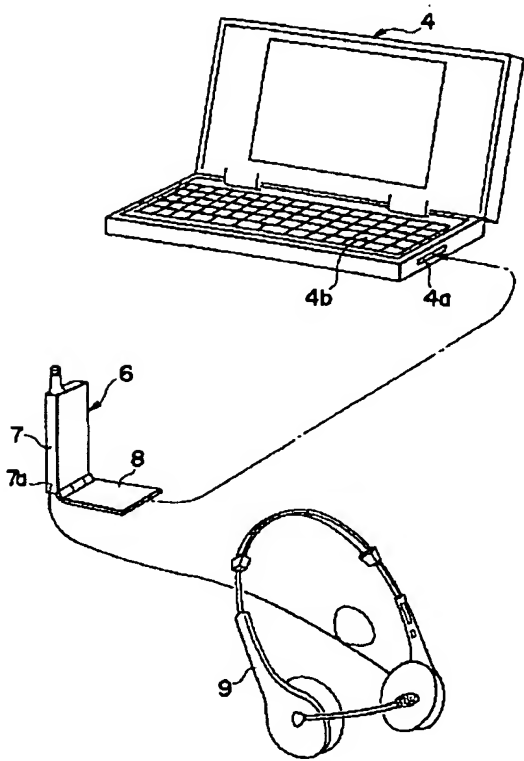
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